



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/614,719	07/12/2000	Seung-Hwan Bac	P-106	2342

7590 10/02/2003

FLESHNER & KIM, LLP
14500 AVON PARKWAY
SUITE 125
CHANTILLY, VA 20151

EXAMINER

BONURA, TIMOTHY M

ART UNIT	PAPER NUMBER
----------	--------------

2184

DATE MAILED: 10/02/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/614,719

Applicant(s)

BAE, SEUNG-HWAN

Examiner

Tim Bonura

Art Unit

2184

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,8,10 and 16 is/are rejected.
- 7) ☒ Claim(s) 2-7,9,11-15 and 17-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 July 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not). Please note that claims 6 and 7 are not number correctly. Appropriate action required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 8, 10, and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Chung, et al, U.S. Patent Number 6,266,781. Regarding claim 1:

a. Regarding the limitation of “a first step of transmitting it own state information of either the first or the second processor to mutually another processor (twin) by using different transmission period to each other,” Chung disclose a system with means to send

Art Unit: 2184

a heartbeat to a watchdog daemon running on each computer which supports failure detection. (Lines 30-32 and 39-41 of Column 6).

b. Regarding the limitation of “a second step of receiving the heartbeat applied from the other processor and recognizing state information of the twin,” Chung disclose a system with means to receive a heartbeat from a processor being watched and to detect functionality of the watched processor. (Lines 43-51 of Column 6).

c. Regarding the limitation of “a third step of performing duplication states according to the state information of the twin.” Chung discloses a system with means to replicate the process that is being processed by the primary processor to the secondary processor. (Lines 54-59 of Column 6).

4. Regarding claim 8, Chung discloses a system with means for a watchdog timer to periodically send heartbeat messages to a super watchdog daemon. (Lines 11-12 of Column 7). The super watchdog will receive the heartbeats for the watchdog and if the watchdog does not send a heartbeat the super watchdog assumes the processor has failed. (Lines 12-16 of Column 7).

5. Regarding claim 10:

d. Regarding the limitation of “incoming heartbeat processing block for transmitting it own state information of either the first or the second processor to mutually another processor (twin) by using different transmission period to each other,” Chung disclose a system with means to send a heartbeat to a watchdog daemon running on each computer which supports failure detection. (Lines 30-32 and 39-41 of Column 6).

Art Unit: 2184

- e. Regarding the limitation of “incoming heartbeat processing block for receiving the heartbeat from the other processor and recognizing state information of the twin,” Chung disclose a system with means to receive a heartbeat from a processor being watched and to detect functionality of the watched processor. (Lines 43-51 of Column 6).
 - f. Regarding the limitation of duplication FSM processing block for performing duplication states processing according to the state information of the twin.” Chung discloses a system with means to replicate the process that is being processed by the primary processor to the secondary processor. (Lines 54-59 of Column 6).
6. Regarding claim 16, Chung discloses a system with means to transmit heartbeats across a network (Lines 40-48 of Column 2), which can send the heartbeats at deferent intervals. (Lines 40-41 of Column 6). A periodic basis that Chung discloses is taken to mean: recurring or reappearing from time to time; intermittent. (From dictionary.com).

Allowable Subject Matter

7. Claims 2-7, 9, 11-15, and 17-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Tim Bonura**. The examiner can normally be reached on **Mon-Fri: 7:30-5:00, every other Friday off**. The examiner can be reached at: **703-305-7762**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Rob Beausoliel** can be reached on **703-305-9713**. The fax phone numbers for the organization where this application or proceeding is assigned are:

703-746-7239 for regular communications

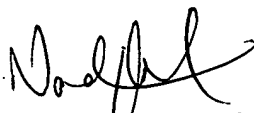
703-746-7240 for After Final communications

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **receptionist** whose telephone number is: **703-305-3900**.

Responses should be mailed to:

Commissioner of Patents and Trademarks

Washington, DC 20231


NADEEM IQBAL
PRIMARY EXAMINER

Tim Bonura
Examiner
Art Unit 2184

tmb
September 26, 2003